

Tuesday, March 20, 2018
POSTER SESSION I: PRESOLAR GRAINS
 6:00 p.m. Town Center Exhibit Area

[T331]

Leitner J. Hoppe P. *POSTER LOCATION #469*
[*Evidence for Explosive H-Burning from Mg-Isotopes in Oxygen-Rich Stardust: Nova Versus Supernova Origin*](#) [#1858]

Large 25Mg-enrichments for several presolar Group 1 silicates (presumed AGB star origin) favor nova or supernova explosions as stellar sources for these grains.

Stroud R. M. Kim T. R. Crane M. J. Pauzuskie P. J. *POSTER LOCATION #470*
[*Noble Gas Incorporation in Presolar Nanodiamond Analogs and Related Carbonaceous Phases*](#) [#2817]

We used a novel diamond anvil cell method to grow Ar-bearing nanodiamonds and characterized them with scanning transmission electron microscopy.

Hundley T. J. Fraundorf P. *POSTER LOCATION #471*
[*Lab Simulation of Carbon Droplet Cooling in AGB Star Atmospheres*](#) [#2154]

Observations confirm that cooling-rate controlled evaporating-carbon ovens can create submicron sized analogs to presolar core-rim onions from AGB atmospheres.

Haenecour P. Howe J. Y. Zega T. J. Wallace P. Amari S. et al. *POSTER LOCATION #472*
[*Microstructure and Inclusions of In-Situ and Acid-Residue Presolar Graphite Grains*](#) [#1330]

We report new TEM data on inclusions and surface coatings of presolar graphites identified *in-situ* in LAP 031117 and derived from Murchison acid residues.

Seifert L. S. Haenecour P. H. Zega T. Z. Floss C. F. *POSTER LOCATION #473*
[*TEM Analysis of Presolar Silicate Grain in the Dominion Range 08006, CO Chondrite*](#) [#2980]

TEM analysis of group-2 presolar Mg-silicate grain revealed an origin in low-intermediate mass AGB stars and condensed at temperatures of 1300–1350K.

Bose M. Till C. Floss C. *POSTER LOCATION #474*
[*Chronometry Using Diffusion in Presolar Silicate Grains*](#) [#1524]

Presolar grains embedded within clumps of dust were heated for <215k years at ~550°C in regions with high dust/gas ratios in the early solar nebula.

Lewis J. B. Bhadharla P. Floss C. *POSTER LOCATION #475*
[*Development of a Technique to Prepare ~100 nm Presolar SiC for Atom-Probe Tomography*](#) [#1174]

Small size of stardust / Platinum 'x' marks the grain / Atom-probe ready.

Bhadharla P. Lewis J. B. *POSTER LOCATION #476*
[*An Electropolishing Cell and Procedure to Prepare Correlated TEM/APT Sample Holders for Presolar Grains*](#) [#2345]

Thinning the half grids / Using current and acid / Electropolish.

Russell C. T. Lai H. R. Schneck U. C. *POSTER LOCATION #477*
[*Collisions in Space: Nano-Scale Dust Production and Its Detection in Space*](#) [#1135]

Nano-scale dust producing collisions are frequent in the inner solar system, but the solar wind clears the nano-scale dust entrained in its magnetic field.